

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/23016

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04L 9/32

US CL : 713/200

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 713/200, 201, 186

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| Y | US 6,293,904 B1 (BLAZEY et al) 25 September 2001 (25.09.2001), column 4, lines 33-67; column 5, lines 16-59; column 6, lines 28-50; column 7, lines 12-58; column 8, lines 25-62; column 9 line 42 to column 10 line 24; column 15 line 18 to column 16 line 49. | 1-28 |
| Y | US 5,534,855 A (SHOCKLEY et al) 09 July 1996 (09.07.1996), column 5 line 36 to column 6 line 8; column 6, lines 21-66; column 7, lines 21-49; column 8, lines 35-59; column 9, lines 14-57. | 1-28 |
| Y | US 5,892,824 A (BEATSON et al) 06 April 1999 (06.04.1999), column 16, lines 16-30; column 17, lines 25-61; column 10, lines 24-57. | 8, 9, 20-28 |
| Y, P | US 6,490,680 B1 (SCHEIDT et al) 03 December 2002 (03.12.2002), column 12 line 58 to column 13 line 19. | 12 |
| A | US 6,310,966 B1 (DULUDE et al) 30 October 2001 (30.10.2001), whole document. | 1-28 |
| A, P | US 6,483,929 B1 (MURAKAMI et al) 19 November 2002 (19.11.2002), whole document. | 1-28 |



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

21 November 2003 (21.11.2003)

Date of mailing of the international search report

15 DEC 2003

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A, T | Bromme, Arslan A Classification of Biometric Signatures IEEE, 2003 pages 17-20 whole document | 1-28 |
| A, T | Anonymous Security Biometrics, Inc. Provides Heightened Security for Microsoft Windows Users Business Wire, Feb 2003 whole document | 1-28 |

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

PALM, EAST, PROQUEST, IEEE, GOOGLE

search terms: heartbeat, heartbeat pattern, biometric, biometric authentication, signature, digital signature, biometric signature, biometric feature